

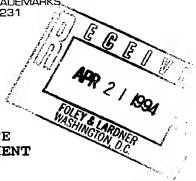


UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

DATE: 03/24/94  
TO:

N12B

STEPHEN A. BENT  
FOLEY & LARDNER  
3000 K STREET, N.W., STE. 500  
WASHINGTON, DC 20007-5109



UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE U.S. PATENT AND TRADEMARK OFFICE ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT ASSIGNMENT PROCESSING SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT BRANCH, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231

ASSIGNOR:  
GREENBERGER, JOEL S.

DOC DATE: 11/03/93

RECORDATION DATE: 03/16/94      NUMBER OF PAGES 003      REEL/FRAME 6883/04

DIGEST : ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE:  
UNIVERSITY OF PITTSBURGH  
911 WILLIAM PITT UNION PITTSBURGH, PA 15260

SERIAL NUMBER      8-136079      FILING DATE      10/15/93  
PATENT NUMBER           ISSUE DATE      00/00/00

RECEIVED  
JUL 29 2002  
TECH CENTER 1600/2900

*P. Foster*  
EXAMINER/PARALEGAL  
ASSIGNMENT BRANCH  
ASSIGNMENT/CERTIFICATION SERVICES DIVISION

RECORDATION FORM COVER SHEET  
PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

① Name of conveying party(ies):

Joel S. GREENBERGER

Additional name(s) of conveying party(ies) attached?

③ Nature of conveyance:

☒ Assignment

☐ Security Agreement

☐ Other

☐ Merger

☐ Change of Name

Execution Date: November 3, 1993

② Name and address of receiving party(ies):

Name: UNIVERSITY OF PITTSBURGH

Internal Address:

Street Address: 911 William Pitt Union

City: Pittsburgh, State: Pennsylvania, ZIP: 15260

Additional name(s) & address(es) attached? No

④ Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

08/136,079

B. Patent No.(s)

Additional numbers attached? No

⑤ Name and address of party to whom correspondence concerning document should be mailed:

Name: FOLEY & LARDNER

Internal Address:

Street Address: 3000 K Street, N.W., Suite 500

City: Washington, State: D.C., ZIP: 20007-5109

⑥ Total number of applications and patents involved: 1

⑦ Total fee (37 C.F.R. § 3.41). . . . . \$40.00

☒ Enclosed

☐ Authorized to be charged to deposit account

⑧ Deposit account number: 19-0741

(Attach duplicate copy of this page if paying by deposit account)

100 JM 12/30/93 08136079

DO NOT USE THIS SPACE

1 581

40.00 CK

⑨ Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Stephen A. Bent

Name of Person Signing

S. A. Bent  
Signature

December 14, 1993

Date

93425612

Total number of pages including cover sheet, attachments, and document: 3

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

ASSIGNMENT

For good and valuable consideration received of the hereinafter Assignee, receipt of which is hereby acknowledged, the undersigned Joel S. GREENBERGER hereby sell and assign to UNIVERSITY OF PITTSBURGH having a place of business at 911 William Pitt Union, Pittsburgh, PA 15260, its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

**PROTECTION FROM IONIZING IRRADIATION OR  
CHEMOTHERAPEUTIC DRUG DAMAGE BY IN VIVO GENE THERAPY**

as set forth in his United States Patent Application

— executed concurrently herewith

— executed on

XX Serial No. 08/136,079 filed October 15, 1993

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to assure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

REEL 6883  
PAGE 408

Assignment  
Page 2

RECORDED  
PATENT & TRADEMARK OFFICE

DEC 14 93

The undersigned hereby grant the firm of FOLEY & LARDNER the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

Date: 11/3/93

Inventor: Joel S. GREENBERGER

Post Office Address:

749 Chestnut Road  
Sewickley, Pennsylvania 15143-1143

Date: 11-3-93

Witness: Patricia Sedlak

Date: \_\_\_\_\_

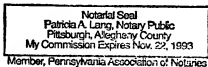
Witness: \_\_\_\_\_

:  
:  
: SS  
:

Before me personally appeared the above named Joel S. GREENBERGER who acknowledged the execution of the foregoing instrument as his free act and deed.

Date: 11-3-93

Patricia A. Lang  
Notary Public



RELB 883 FRANK 09



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 13, 1996

STEPHEN A. BENT  
FOLEY & LARDNER  
3000 K STREET, N.W., SUITE 500  
WASHINGTON, D.C. 20007

PTAS

RECEIVED

MAR 18 1996

FOLEY & LARDNER  
WASHINGTON, D.C.

\*100094277A\*



UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/25/1995

REEL/FRAME: 7697/0730  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

GREENBERGER, JOEL S.

DOC DATE: 08/02/1995

ASSIGNEE:

UNIVERSITY OF PITTSBURGH  
OFFICE OF TECHNOLOGY TRANSFER  
911 WILLIAM PITT UNION  
PITTSBURGH, PENNSYLVANIA 15260

SERIAL NUMBER: 08484836

FILING DATE: 06/07/1995

PATENT NUMBER:

ISSUE DATE:

JOANN STEWART, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

RECEIVED  
JUL 29 2002  
TECH CENTER 1600/2900

40-581

A/D

11-27-1995

FORM PTO-1595 (modified)  
(Rev. 6-83)

REC'D

OMB No. 0651-0011 (exp. 1/95)



100894277

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy them here.

1. Name of conveying party(ies):

Joel S. GREENBERGER

11/03/95

Additional name(s) of conveying party(ies) attached? No

2. Name and address of receiving party(ies):

Name: University of PittsburghInternal Address: Office of Technology TransferStreet Address: 911 William Pitt UnionCity: Pittsburgh, State: PA ZIP: 15260

3. Nature of conveyance:

- ☒ Assignment                      -      Merger  
☐ Security Agreement           -      Change of Name  
☐ Other

Execution Date: August 2, 1995Additional name(s) & address(es) attached? No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

08/484,836

Additional numbers attached? No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Stephen A. BentInternal Address: FOLEY & LARDNERStreet Address: 3000 K Street, N.W., Suite 500City: Washington, State: D.C. ZIP: 200076. Total number of applications and patents involved: One7. Total fee (37 C.F.R. § 3.41). . . . . \$40.00☒ Enclosed☐ Authorized to be charged to deposit account8. Deposit account number: 19-0741

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Stephen A. Bent

Name of Person Signing

Signature

September 25, 1995

Date

Total number of pages including cover sheet, attachments, and document: 2

Mail documents to be recorded with required cover sheet information to:  
 Commissioner of Patents and Trademarks, Box 280  
 Washington, D.C. 20231 1 581 40.00 CK

Copied from 08484836 on 01/10/2005

# ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto



UNIVERSITY OF PITTSBURGH  
911 William Pitt Uni n  
Pittsburgh, PA 15260

successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

## PROTECTION FROM IONIZING IRRADIATION OR CHEMOTHERAPEUTIC DRUG DAMAGE BY IN VIVO GENE THERAPY

as set forth in his United States Patent Application

executed concurrently herewith

executed on

XX Serial No. 8/484,836 filed June 7, 1995

RECEIVED  
JUL 29 2002  
TECH CENTER 1600/2900

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of FOLEY & LARDNER the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS		
Name: Joel S. GREENBERGER	Signature: <i>Joel S. Greenberger</i>	Date: <i>8/2/95</i>
Name:	Signature:	Date:
Name:	Signature:	Date:
NAMES AND SIGNATURES OF WITNESSES		
Name: <i>Patricia Sedlak</i>	Signature: <i>Patricia Sedlak</i>	Date: <i>8-2-95</i>
Name: <i>Beth Dudley</i>	Signature: <i>Beth Dudley</i>	Date: <i>8-2-95</i>

Note: Prima facie evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.